405 KAR 3:140. Water quality standards and surface water monitoring.

RELATES TO: KRS 350.151
STATUTORY AUTHORITY: KRS 350.151
NECESSITY, FUNCTION, AND CONFORMITY: KRS 350.151 requires the Environmental and Public Protection Cabinet to adopt rules and administrative regulations for the surface effects of underground coal mining. This administrative regulation sets forth water quality standards and requirements for surface water monitoring.

Section 1. Water Quality Standards. For purposes of this administrative regulation disturbed areas shall include areas of surface operations but shall not include those areas in which only diversion ditches, sedimentation ponds, or roads are installed in accordance with this administrative regulation and the upstream area is not otherwise disturbed by the permittee. Disturbed areas shall not include those surface areas overlying underground workings unless those areas are also disturbed by surface operations such as fill (disposal) areas, support facilities areas, or other major activities which create a risk of pollution.

(1) All waters which flow or are removed from underground operations or underground waters which are removed from other areas to facilitate mining and which discharge to surface waters must be passed through appropriate treatment facilities prior to discharge where necessary to meet effluent limitations. Sedimentation ponds required by this chapter shall be constructed in accordance with 405 KAR 3:170 in appropriate locations prior to any mining in the affected drainage area in order to control sedimentation or otherwise treat water in accordance with this chapter.

(2) Discharges from underground workings, other discharges of underground water, and discharges from areas disturbed by surface operations and reclamation activities must meet all applicable federal and state regulations and, at a minimum, the following numerical effluent limitations:

Effluent Limitations, in Milligrams per Liter, mg/1, except for pH		
Effluent Characteristics	Maximum allowable*	Average of daily values for 30 consecutive discharge days*
Iron, total	7.0	3.5
Manganese, total**	4.0	2.0
Total suspended solids	70.0	35.0
pH***	Within the range 6.0 to 9.0	

*Based on representative sampling.

**Applicable only when run-off prior to treatment has a pH less than six (6.0) or total iron greater than ten (10.0) mg/l.

***Where the application of neutralization and sedimentation treatment technology results in inability to comply with the manganese limitations set forth, the cabinet may allow the pH level in the discharge to exceed to a small extent the upper limit of nine (9.0) in order that the manganese limitations will be achieved.

(3) Any overflow or other discharge of surface water from the disturbed area within the permit area demonstrated by the permittee to result from a precipitation event larger than the ten (10) year twenty-four (24) hour frequency event will not be subject to the effluent limitations listed in subsection (2) of this section.

(4) The permittee shall install, operate, and maintain adequate facilities to treat any water discharged from the disturbed area that violates applicable federal or state regulations or the limitations listed in subsection (2) of this section.

(5) If the pH of waters to be discharged from the disturbed area is normally less than six (6.0), an automatic lime feeder or other neutralization process approved by the cabinet shall be installed, operated, and maintained. If the cabinet finds that small and infrequent treatments are required to meet effluent limitations and do not necessitate use of an automatic neutralization process, and the mine normally produces less than 500 tons of coal per day, then the cabinet may approve the use of a manual system if the cabinet finds that consistent and timely treatment can be assured by the permittee.

Section 2. Surface Water Monitoring. (1) The permittee shall submit for approval by the cabinet a surface water monitoring program which meets the following requirements:

(a) Provides adequate monitoring of all discharge from the disturbed area and from the underground operations.

(b) Provides adequate data to describe the likely daily and seasonal variation in discharges from the disturbed area in terms of flow, pH, total iron, total manganese (when the run-off prior to treatment has a pH less than six (6.0) or total iron greater than ten (10.0) mg/l), and total suspended solids and, as requested by the cabinet, any other parameter characteristic of the discharge.

(c) Provides monitoring at appropriate frequencies to measure normal and abnormal variations in concentrations.

(d) Provides an analytical quality control system including standard methods of analysis such as those specified in 40 CFR 136.

(e) Provides regular reports of all measurements to the cabinet within sixty (60) days of sample collection unless violations of permit conditions occur in which case the cabinet shall be notified immediately after receipt of analytical results by the permittee. If the discharge is subject to administrative regulation by a federal or state permit issued in compliance with Section 301 of the Federal Water Pollution Control Act Amendment of 1972, a copy of the completed reporting form supplied to meet the permit requirements may be submitted to the cabinet to satisfy the reporting requirements of this administrative regulation if the data meet the frequency and other requirements of this section.

(2) Equipment, structures, or other measures necessary to accurately measure and sample the quality and quantity of surface water discharges from the disturbed area of the permit area shall be properly installed, maintained and operated and shall be removed when no longer required. (4 Ky.R. 522; Am. 5 Ky.R. 230; eff. 8-23-78; TAm eff. 8-9-2007.)